

REMARKS

Claims 1, 2, 5, 7, 8, 10 to 15 and 23 to 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,058,844 to Niemiec ("Niemiec") in view of U.S. Patent No. 3,238,869 to West et al. ("West") and U.S. Patent No. 6,832, 832 to Shima et al. ("Shima"). Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of West and U.S. Patent No. 6,550,390 to Frankenberger ("Frankenberger"). Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of West, Shima and U.S. Patent No. 5,913,471 to Makosch et al. ("Makosch"). Claims 16 to 18 and 20 to 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of West, Shima and U.S. Patent No. 3,875,682 to Justus et al. ("Justus").

Claims 1, 7, 14 and 23 have been amended. Support is found in the specification for example at page 4, lines 3 to 10 and page 25, lines 9 to 16. Claim 18 is hereby canceled without prejudice.

Reconsideration of the application based on the following remarks is respectfully requested.

Rejections under 35 U.S.C. §103(a): Claims 1, 2 and 5

Claims 1, 2, 5, 7, 8, 10 to 15 and 23 to 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,058,844 to Niemiec ("Niemiec") in view of U.S. Patent No. 3,238,869 to West et al. ("West") and U.S. Patent No. 6,832, 832 to Shima et al. ("Shima").

Niemiec discloses a printing press which includes a series of printing units 16 for printing an unwound web 14 from unwind station 12. (Niemiec, Fig. 1). After printing, the web 14 passes sequentially through a floater oven 18 and chiller rolls 20 before passing to a sheeter/folder/-rewinder station 22. (Id.).

West discloses a label imprinting apparatus which includes two front guides 160 and 161 at the output of printing cylinder 30 and serve to prevent printed labels from sticking to the printing cylinder 30. (West, Fig. 3, col. 10, lines 3-12).

Shima discloses an image forming apparatus that includes an inkjet type printing unit PU for applying ink droplets to a recording medium 1 that includes PET film substrate 10, a fixing layer 11 and a surface layer 12. (Col. 6, lines 17 to 49). After ink droplets are applied to recording medium 1, a sheet cutter means 5 in printing unit PU cuts recording medium 1 into a sheet. (Col. 7, lines 43 to 54). The sheet is transported into a loop-forming unit LU and then to a heat fixing unit HU. (Col. 7, lines 55 to 64). Loop-forming unit LU allows a trailing end of the sheet of recording medium 1 to exit printing unit PU so the sheet can be adjusted to the speed of a heating transport mechanism 54 of heat fixing unit HU before a leading end of the sheet enters heat fixing unit HU. (Col. 10, lines 41 to 56; col.16, line 63 to col. 19, line 45). Loop-forming unit LU allows the transport speed and/or retention time of sheets of recording medium 1 in the heat fixing unit HU to be optimally set, independently of the discharging speed of the recording medium from printing unit PU. (Col. 3, lines 61 to 65).

Independent Claim 1

Claim 1, as amended, recites "[a] web-fed rotary printing press, comprising:

at least one press cylinder for printing a paper web conveyed at a controllable first tensile stress;

a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;

a pull roll disposed downstream of said dryer for conveying the paper web along said meander-like path under a second tensile stress;

a first apparatus disposed downstream of said press cylinder and upstream of said dryer for separating the paper web from said press cylinder during a normal printing operation, said separating of the paper web from said press cylinder being decoupled from the conveying of said paper web along said path;

a second apparatus for driving said pull roll at a controllable rotational speed which sets said second tensile stress; and

a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress.” Claims 2 and 5 are dependent on claim 1.

It is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another” as recited in claim 1. Oven 18 of Niemiec, which the Examiner alleges corresponds to the “dryer” of claim 1, does not include a plurality of nozzle bars. Also, neither West nor Shima teaches or makes obvious the “nozzle bars” now recited in claim 1.

Furthermore, it is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress” as recited in claim 1. The Examiner alleges that a controller 7 of Shima corresponds to the “controller” of claim 1. In Shima, controller 7 controls inkjet printing of recording material 1, cutting recording material 1 into sheets and then transporting each sheet to a loop-forming unit LU before transporting each sheet to a heat fixing unit HU. The “controller” recited in claim 1 sets a first *tensile stress* and a second *tensile stress* of a *web*. Controller 7 only controls the *speed* that *sheets* of recording medium 1 are transporting in printing unit PU and heat fixing unit HU of Shima. The sheets in Shima are clearly not a web. Thus, controller 7 of Shima clearly does not set a first tensile stress and a second tensile stress of a *web* as required by claim 1. Also, Shima does not disclose that controller 7 sets the tensile stress of the sheet in heat fixing unit HU to be less than the tensile stress of the sheet in printing unit PU. Shima merely teaches that the sheets may be transported at a lower speed in heat fixing unit HU than in printing unit PU. Because tensile stress of a substrate depends on more than simply a speed a substrate is being transported, the teaching of Shima related to the speed of the sheets in printing unit PU and heat fixing unit HU is insufficient to establish a relationship between the tensile stress of the sheets in printing unit PU

and heat fixing unit HU.

Additionally, it is respectfully submitted that one of skill in the art would not have had any reason to modify the printing press of Niemiec in view of the printing apparatus of Shima to include controller 7 of Shima. The Examiner alleges that “[i]t would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Niemiec to have a controller controlling the first and second tensile stresses, as taught by Shima et al., so that the drying of the web can be better controlled.” Niemiec discloses drying a printed web using a floater type oven 18 “through which the printed web passes *without contacting any surfaces* in the oven.” (Emphasis added). In Shima, controller 7 controls the speed that a sheet is passed through heat fixing unit HU by controlling the rotation of the rollers of heat transporting mechanism 54 in heat fixing unit HU to allow retention time of the recording medium in heat fixing unit HU to be optimally set. One of skill in the art would not have had any reason to have modified the web printing press of Niemiec to include controller 7 of Shima because controller 7 of Shima controls the sheets using rollers inside of heat fixing unit HU, which Niemiec explicitly teaches away from. Also, because Shima teaches conveying sheets in an elongated state, controller 7 of Shima clearly would not be used with a “dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path” as now recited in claim 1.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 1 and its dependent claims 2 and 5 is respectfully requested.

Independent claim 7

Claim 7 recites “[a] web-fed rotary printing press, comprising:

at least one press cylinder for printing a paper web conveyed under a controllable first tensile stress;

a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;

a first pull roll disposed downstream of said dryer to convey the paper web along the meander-like path under a second tensile stress;

a second pull roll, which is disposed downstream of said press cylinder and upstream of said dryer, for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll;

an apparatus for driving said first pull roll at a controllable rotational speed which sets said second tensile stress; and

a controller coupled to said at least one press cylinder and to said apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress.” Claims 8 and 10 to 13 are dependent on claim 7.

It is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another” as recited in claim 7. Owen 18 of Niemiec, which the Examiner alleges corresponds to the “dryer” of claim 7, does not include a plurality of nozzle bars. Also, neither West nor Shima teaches or makes obvious the “nozzle bars” now recited in claim 7.

Furthermore, it is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress” as recited in claim 7. The Examiner alleges that a controller 7 of Shima corresponds to the “controller” of claim 7. In Shima, controller 7 controls inkjet printing of recording material 1, cutting recording material 1 into sheets and then transporting each sheet to a loop-forming unit LU before transporting each sheet to a heat fixing unit HU. The “controller” recited in claim 7 sets a first *tensile stress* and a second *tensile stress* of a *web*. Controller 7 only controls the *speed* that *sheets* of recording

medium 1 are transporting in printing unit PU and heat fixing unit HU of Shima. The sheets in Shima are clearly not a web. Thus, controller 7 of Shima clearly does not set a first tensile stress and a second tensile stress of a *web* as required by claim 7.

Also, Shima does not even disclose that controller 7 sets the tensile stress of the sheet in heat fixing unit HU to be less than the tensile stress of the sheet in printing unit PU. Shima merely teaches that the sheets may be transported at a lower speed in heat fixing unit HU than in printing unit PU. Because tensile stress of a substrate depends on more than simply a speed a substrate is being transported, the teaching of Shima related to the speed of the sheets in printing unit PU and heat fixing unit HU is insufficient to establish a relationship between the tensile stress of the sheets in printing unit PU and heat fixing unit HU and would not provide any reason for one of skill in the art to modify Niemiec to include the “controller” of claim 7.

Furthermore, it is respectfully submitted that one of skill in the art would not have modified the printing press of Niemiec in view of the printing apparatus of Shima to include controller 7 of Shima “so that the drying of the web can be better controlled” as alleged by the Examiner. (Office Action of February 3, 2010, page 3). Niemiec discloses drying a printed web using a floater type oven 18 “through which the printed web passes *without contacting any surfaces* in the oven.” (Emphasis added). In Shima, controller 7 controls the speed that a sheet is passed through heat fixing unit HU by controlling the rotation of the rollers of heat transporting mechanism 54 in heat fixing unit HU. Shima states that this allows retention time of the recording medium in heat fixing unit HU to be optimally set. One of skill in the art would not have had any reason to have modified the web printing press of Niemiec to include controller 7 of Shima because controller 7 of Shima controls the sheets using rollers inside of heat fixing unit HU. Using the rollers of transporting mechanism 54 of Shima in oven 18 of Niemiec would cause the printed web in Shima to contact the surfaces of the rollers in oven 18, which Niemiec explicitly teaches away from. Thus, one of skill in the art would have been lead away from using controller 7 of Shima in oven 18 of Niemiec. Also, because Shima teaches conveying sheets in an elongated state, controller 7 of Shima clearly would not be used with a “dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like

path” as now recited in claim 7.

It is also respectfully submitted that one of skill in the art would not have had any reason to modify Niemiec in view of Shima to include pinching transport roller set 31 of Shima upstream of floater type oven 18 of Niemiec. Also, the Examiner has not established a prima facie case of obviousness with respect to claim 7 because the Examiner has not provided any reason why one of skill in the art would have modified Niemiec in view of Shima to include pinching transport roller set 31 of Shima upstream of floater type oven 18 of Niemiec. (See the Office Action of February 3, 2010, page 5).

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 7 and its dependent claims 8 and 10 to 13 is respectfully requested.

Independent claim 14

Claim 14 recites “[a] method for treating a printing material web in a printing material web in a web-fed rotary printing press, which further comprises:

feeding a paper web to a press cylinder under a first controllable tensile stress;

printing on the paper web using the press cylinder;

conveying the paper web along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress, the drying path being established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another; and

separating the paper web from the press cylinder during a normal printing operation, the separating of each paper web from the press cylinder being decoupled from the conveying of the paper web along the path.” Claim 15 is dependent on claim 14.

It is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “the drying path being established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another” as recited in claim 14.

Furthermore, it is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “conveying the paper web along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress” as recited in claim 14. Claim 14 requires that a web be fed to “a press cylinder under a first controllable tensile stress” and then be conveyed “along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress.” None of Niemiec, Fischer or Shima teaches or suggests controllably setting two different tensile stress levels on a web as the web passes through a printing press. As discussed above, controller 7 only controls the *speed* that *sheets* of recording medium 1 are transporting in printing unit PU and heat fixing unit HU of Shima. The sheets in Shima are clearly not a web. Thus, controller 7 of Shima clearly does not set a first tensile stress and a second tensile stress of a *web* as required by claim 14. Also, Shima does not disclose that controller 7 sets the tensile stress of the sheet in heat fixing unit HU to be less than the tensile stress of the sheet in printing unit PU. Shima merely teaches that the sheets may be transported at a lower speed in heat fixing unit HU than in printing unit PU. Because tensile stress of a substrate depends on more than simply a speed a substrate is being transported, the teaching of Shima related to the speed of the sheets in printing unit PU and heat fixing unit HU is insufficient to establish a relationship between the tensile stress of the sheets in printing unit PU and heat fixing unit HU.

It is also respectfully submitted that none of the cited references teaches or suggests setting two tensile stress levels in the claimed proportion of “equal to or less than 10%” as specifically required by claim 14. The Examiner, apparently relying on MPEP 2144.05, states “[a]lthough Niemiec, West et al. and Shima et al. do not explicitly teach controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.” (February 3, 2010 Office Action, page 7). It is respectfully submitted that MPEP 2144.05 is not applicable to claim 14 because MPEP 2144.05 relates to numerical ranges such as “differences in concentration or temperature,” while claim 14 relates to

a relationship between two tensions set on a single web. Also, it is respectfully submitted that the Examiner's reasoning for obviousness of this limitation of claim 14 is merely conclusory and is not supported by sufficient reasoning or evidence to establish a prima facie case of obviousness. Even if MPEP 2144.05 applies, it is respectfully submitted that there is no indication in any of the references that the relationship between the tension of the web as the web is fed to a press cylinder and the tension of the web as the web is conveyed in a drying path is a results effective variable as described in MPEP 2144.05.

Additionally, it is respectfully submitted that one of skill in the art would not have modified the printing press of Niemiec in view of the printing apparatus of Shima to include controller 7 of Shima "so that the drying of the web can be better controlled" as alleged by the Examiner. Niemiec discloses drying a printed web using a floater type oven 18 "through which the printed web passes *without contacting any surfaces* in the oven." (Emphasis added). In Shima, controller 7 controls the speed that a sheet is passed through heat fixing unit HU by controlling the rotation of the rollers of heat transporting mechanism 54 in heat fixing unit HU to allow retention time of the recording medium in heat fixing unit HU to be optimally set. One of skill in the art would not have had any reason to have modified the web printing press of Niemiec to include controller 7 of Shima because controller 7 of Shima controls the sheets using rollers inside of heat fixing unit HU, which Niemiec explicitly teaches away from. Also, because Shima teaches conveying sheets in an elongated state, controller 7 of Shima clearly would not be used with a drying path that is "established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path" as now recited in claim 14.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 14 and its dependent claim 15 is respectfully requested.

Independent claim 23

Claim 23 recites "[a] web-fed rotary printing press, comprising:

at least one press cylinder for printing a paper web conveyed under a controllable first tensile stress;

a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;

a first pull roll disposed downstream of said dryer to convey the paper web along the path under a controllable second tensile stress;

a second pull roll disposed downstream of said press cylinder and upstream of said dryer for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll;

an apparatus for driving said first pull roll at a controllable rotational speed to set said second tensile stress; and

a controller coupled to said apparatus and to said second pull roll for controlling said second tensile stress and said third tensile stress such that said second tensile stress is less than said third tensile stress.” Claims 24 to 26 are dependent on claim 23.

It is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another” as recited in claim 23. Oven 18 of Niemiec, which the Examiner alleges corresponds to the “dryer” of claim 23, does not include a plurality of nozzle bars. Also, neither West nor Shima teaches or makes obvious the “nozzle bars” now recited in claim 23.

Furthermore, it is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress” as recited in claim 23. The Examiner alleges that a controller 7 of Shima corresponds to the “controller” of claim 23. In Shima, controller 7 controls inkjet printing of recording material 1, cutting recording material 1 into sheets and then transporting each sheet to a loop-forming unit LU before transporting each sheet to a heat fixing unit HU. The “controller” recited in claim 23 sets a first *tensile stress* and a

second *tensile stress* of a *web*. Controller 7 only controls the *speed* that *sheets* of recording medium 1 are transporting in printing unit PU and heat fixing unit HU of Shima. The sheets in Shima are clearly not a web. Thus, controller 7 of Shima clearly does not set a first tensile stress and a second tensile stress of a *web* as required by claim 23. Also, Shima does not disclose that controller 7 sets the tensile stress of the sheet in heat fixing unit HU to be less than the tensile stress of the sheet in printing unit PU. Shima merely teaches that the sheets may be transported at a lower speed in heat fixing unit HU than in printing unit PU. Because tensile stress of a substrate depends on more than simply a speed a substrate is being transported, the teaching of Shima related to the speed of the sheets in printing unit PU and heat fixing unit HU is insufficient to establish a relationship between the tensile stress of the sheets in printing unit PU and heat fixing unit HU.

Additionally, it is respectfully submitted that one of skill in the art would not have modified the printing press of Niemiec in view of the printing apparatus of Shima to include controller 7 of Shima “so that the drying of the web can be better controlled” as alleged by the Examiner. Niemiec discloses drying a printed web using a floater type oven 18 “through which the printed web passes *without contacting any surfaces* in the oven.” (Emphasis added). In Shima, controller 7 controls the speed that a sheet is passed through heat fixing unit HU by controlling the rotation of the rollers of heat transporting mechanism 54 in heat fixing unit HU to allow retention time of the recording medium in heat fixing unit HU to be optimally set. One of skill in the art would not have had any reason to have modified the web printing press of Niemiec to include controller 7 of Shima because controller 7 of Shima controls the sheets using rollers inside of heat fixing unit HU, which Niemiec explicitly teaches away from. Also, because Shima teaches conveying sheets in an elongated state, controller 7 of Shima clearly would not be used with a “dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path” as now recited in claim 23.

It is also respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “a second pull roll disposed downstream of said press cylinder and upstream of said dryer for releasing the paper web during a normal printing operation and for

controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll” as recited in claim 23 and the Examiner is in error for failing to address this language of claim 23. Pinching transport roller set 31 of Shima is different from the “second pull roll” required by claim 23 because roller set 31 of Shima does not release a paper web during normal printing operation and controllably set a third tensile stress on a paper web between a press cylinder and roller set 31. Also, one of skill in the art would not have had any reason to modify Niemiec in view of Shima to include pinching transport roller set 31 of Shima upstream of floater type oven 18 of Niemiec and the Examiner has not established a prima facie case of obviousness with respect to claim 23 because the Examiner has not provided any reason why one of skill in the would have modified Niemiec in view of Shima to include pinching transport roller set 31 of Shima upstream of floater type oven 18 of Niemiec.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 23 and its dependent claims 24 to 26 is respectfully requested.

Rejections under 35 U.S.C. §103(a): Claims 3 and 4

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of West, Shima and Frankenberger.

Niemiec, West and Shima are described above. Frankenberger discloses an apparatus for releasing a paper web from a cylinder using ultrasonic waves⁰. (Frankenberger, Fig. 1, col. 4, lines 31 *et seq.*).

Claims 3 and 4 are dependent on independent claim 1. As discussed above, Niemiec in view of West and Shima does not render claim 1 unpatentable as obvious. Thus, since Frankenberger does not disclose the limitations of claim 1 missing from the cited combination as discussed above, claims 3 and 4 are likewise not unpatentable as obvious over Niemiec in view of West and Shima, and further in view of Frankenberger. Withdrawal of the rejections of claims 3 and 4 under 35 U.S.C. §103(a) on this basis is thus respectfully requested.

Rejections under 35 U.S.C. §103(a): Claims 6 and 9

Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of West, Shima and Makosch.

Niemiec, West and Shima are described above. Makosch discloses a separating roll 3, 4 for a printing press having respective outer surfaces 3a, 4a made from an ink-repellent material. (Makosch, Fig. 1, col. 3, lines 35-37).

Claim 6 is dependent on claim 1 and claim 9 is dependent on claim 7. As discussed above, Niemiec in view of West and Shima does not render either of claims 1 and 7 unpatentable as obvious. Thus, since Makosch does not disclose the limitations of claims 1 and 7 missing from the cited combination as discussed above, claims 6 and 9 are likewise not unpatentable as obvious over Niemiec in view of West and Shima, and further in view of Makosch. Withdrawal of the rejection of claims 6 and 9 under 35 U.S.C. § 103(a) on this basis is thus respectfully requested.

Rejections under 35 U.S.C. § 103(a): Claims 16 to 18 and 20 to 22

Claims 16 to 18 and 20 to 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of West, Shima and Justus.

Niemiec, West and Shima are described above. Justus discloses a driven edge roll 16 mounted in a drum dryer positioned at the edge of a web W so that it applies pressure to the web W. (Justus, Fig. 1). The edge roll 16 is driven at a speed of between 50 and 100 percent, preferably 75 percent, of the speed of web travel to eliminate flutter of the web W within the dryer. (Justus, col. 2, line 65 to col. 3, line 6). Notably, the edge roll 16 does not extend across the entire web W and thus does not affect the speed of travel of the web W itself. As a result, since the edge roll 16 is placed between dryer drums 13 and 14, it does not appear that the edge roll 16 operates to convey the web or affects the tensile stress of the web W at points prior to dryer drum 13 at all.

Claims 16 to 18 and 20 to 22 are dependent on independent claim 14. As discussed above, Niemiec in view of West and Shima does not render claim 14 unpatentable as obvious.


Thus, since Justus does not disclose the limitations of claim 14 missing from the cited combination as discussed above, claims 16 to 18 and 20 to 22 are likewise not unpatentable as obvious over Niemiec in view of West and Shima, and further in view of Justus. Withdrawal of the rejections of claims 16 to 18 and 20 to 22 under 35 U.S.C. §103(a) on this basis is thus respectfully requested.

CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

Respectfully submitted,
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